

Claims

- [c1] A method of monitoring and automating a home using a network-based system including a server system coupled to a centralized database, at least one client system, and a plurality of sensors positioned throughout the home, said method comprising the steps of: receiving monitoring and automation (M&A) information from the client system; storing M&A information into the centralized database; cross-referencing M&A information; updating the centralized database periodically to maintain M&A information; monitoring M&A information within the home through the plurality of sensors; performing M&A tasks in the home using the plurality of sensors based on M&A information inputted into the client system and monitored M&A data; and notifying a home owner of the monitored M&A data and the M&A tasks performed within the home.
- [c2] A method in accordance with Claim 1 wherein receiving M&A information comprises receiving a description of the home and surrounding property including at least one of a layout of the house, a layout of any buildings on the property, a description of the property, and information relating to at least one of lights, locks, doors, windows, drapes, appliances, utilities, furnace, air conditioner, medical devices, security systems, irrigation systems, smoke detectors, thermostats, sound system, swimming pool, occupancy, and access restrictions within the home and the surrounding property.
- [c3] A method in accordance with Claim 1 wherein receiving M&A information comprises: displaying information on the client system that prompts the user to input the location of the home; inputting updated M&A information into the client system; and inputting M&A tasks to be performed at the home through the client system.
- [c4] A method in accordance with Claim 1 wherein cross-referencing M&A information comprises comparing M&A information inputted into the client system with M&A information stored on the centralized database.
- [c5] A method in accordance with Claim 1 wherein monitoring M&A information comprises positioning at least one of a plurality of video cameras and the plurality of sensors throughout the home and the surrounding property such

that the movement of persons within the home and on the surrounding property is recorded, the video cameras and the sensors electronically connected to the client system.

[c6] A method in accordance with Claim 5 wherein monitoring M&A information further comprises: recording a date, a start time, an end time, and a duration of time an area of the home is occupied, and transferring from the video cameras and the sensors to the client system a date, a start time, an end time, and a duration of time an area of the home is occupied.

[c7] A method in accordance with Claim 5 wherein monitoring M&A information further comprises employing at least one of the video cameras and the sensors to record and identify persons attempting to access restricted areas of the home.

[c8] A method in accordance with Claim 1 wherein monitoring M&A information comprises positioning a plurality of sensors on at least one window within the home such that the condition of the window is recorded, the condition of the window includes at least one of locked, unlocked, open, closed, vibrating, and broken.

[c9] A method in accordance with Claim 1 wherein monitoring M&A information comprises positioning a plurality of sensors on at least one door within the home such that the condition of the door is recorded, the condition of the door including at least one of locked, unlocked, open, closed, vibrating, and broken.

[c10] A method in accordance with Claim 1 wherein monitoring M&A information comprises positioning a plurality of sensors on at least one of walls, floors, ceilings, lights, drapes, appliances, utilities, furnace, air conditioner, medical devices, security systems, irrigation systems, smoke detectors, thermostats, sound system, swimming pool, and driveway within the home and on the surrounding property such that condition of the walls, floors, ceilings, lights, drapes, appliances, utilities, furnace, air conditioner, medical devices, security systems, irrigation systems, smoke detectors, thermostats, sound system, swimming pool, and driveway is recorded.

[c11] A method in accordance with Claim 1 wherein performing M&A tasks comprises positioning a plurality of sensors on at least one window within the home such that the sensors can electronically activate and deactivate the lock on the window.

[c12] A method in accordance with Claim 1 wherein performing M&A tasks comprises positioning a plurality of sensors on at least one door within the home such that the sensors can electronically activate and deactivate the lock on the door.

[c13] A method in accordance with Claim 1 wherein performing M&A tasks comprises positioning a plurality of sensors on at least one of lights, drapes, appliances, utilities, furnace, air conditioner, medical devices, security systems, irrigation systems, smoke detectors, thermostats, sound system, and swimming pool within the home and on the surrounding property such that the sensors can electronically activate and deactivate at least one of lights, drapes, appliances, utilities, furnace, air conditioner, medical devices, security systems, irrigation systems, smoke detectors, thermostats, sound system, and swimming pool.

[c14] A method in accordance with Claim 1 wherein notifying a home owner comprises transmitting an electronic message to the client system from the server system that provides the home owner with M&A information for the home and surrounding property.

[c15] A method in accordance with Claim 1 wherein notifying a home owner comprises transmitting an electronic message to the client system from the server system providing the home owner with the monitored M&A data.

[c16] A method in accordance with Claim 1 wherein notifying a home owner comprises transmitting an electronic message to the client system from the server system providing the home owner with the M&A tasks performed at the home and surrounding property.

[c17] A method in accordance with Claim 1 further comprising connecting the client system and the server system via a network that includes one of a wide area network, a local area network, an intranet and the Internet.

[c18] A method in accordance with Claim 1 further comprising connecting the system to at least a cell phone and a PDA such that the system can be remotely controlled.

[c19] A method of monitoring and automating a home using a network-based system including a server system coupled to a centralized database and a client system, a plurality of sensors positioned throughout the home, and a service provider system, said method comprising the steps of: receiving M&A information from the client system; storing M&A information into the centralized database; cross-referencing M&A information; updating the centralized database periodically to maintain M&A information; monitoring M&A information within the home through the plurality of sensors; performing M&A tasks in the home through the plurality of sensors based on M&A information inputted into the client system and monitored M&A data; notifying a home owner of the M&A data and the M&A tasks performed within the home; and contacting the service provider system to request and schedule a service to be performed on a monitored device within the home based on the M&A information inputted into the client system and the monitored M&A data.

[c20] A method in accordance with Claim 19 wherein receiving M&A information comprises receiving a description of the home and surrounding property including at least one of a layout of the house, a layout of any buildings on the property, a description of the property, and information relating to at least one of lights, locks, doors, windows, drapes, appliances, utilities, furnace, air conditioner, medical devices, security systems, irrigation systems, smoke detectors, thermostats, sound system, swimming pool, occupancy, and access restrictions within the home and on the surrounding property.

[c21] A method in accordance with Claim 20 wherein receiving M&A information further comprises receiving contact information relating to at least one service provider for each item monitored and storing it on the centralized database.

[c22] A method in accordance with Claim 21 wherein monitoring the home comprises: positioning a plurality of sensors on at least one of lights, drapes, appliances, utilities, furnace, air conditioner, medical devices, security systems,

irrigation systems, smoke detectors, thermostats, sound system, and swimming pool within the home and on the surrounding property; monitoring the operational condition of at least one of lights, drapes, appliances, utilities, furnace, air conditioner, medical devices, security systems, irrigation systems, smoke detectors, thermostats, sound system, and swimming pool with the sensors, and determining whether a malfunction is occurring.

[c23] A method in accordance with Claim 22 wherein contacting the service provider system comprises: determining the monitored item that requires service; accessing the centralized database; cross-referencing the monitored item that requires service with the service provider contact information; transmitting an electronic message from the server system to the retrieved service provider notifying the service provider of the monitored item requiring service and scheduling a service call.

[c24] A network-based system for monitoring and automating a home, said system comprising: a client system comprising a browser; a centralized database for storing information; a plurality of sensors positioned throughout the home; a server system configured to be coupled to said client system and said database, said server system further configured to: receive M&A information from the client system; store M&A information into the centralized database; cross-reference M&A information; update the centralized database periodically to maintain M&A information; monitor M&A information within the home through the plurality of sensors; perform M&A tasks in the home through the plurality of sensors based on M&A information inputted into the client system and monitored M&A data; and notify a home owner of the monitored M&A data and the M&A tasks performed within the home.

[c25] A system in accordance with Claim 24 wherein said client system further comprises at least one of: a displaying component for displaying at least one of a pull-down list, a check box, and hypertext link options relating to M&A information; a sending component to send M&A information to the server system; a collection component for collecting M&A information and storing on the centralized database; a tracking component for tracking M&A information; a

displaying component for displaying M&A information;a receiving component for receiving M&A information from the client system and the plurality of sensors regarding at least one of a layout of the house, a layout of any buildings on the property, a description of the property, and information relating to at least one of lights, locks, doors, windows, drapes, appliances, utilities, furnace, air conditioner, medical devices, security systems, irrigation systems, smoke detectors, thermostats, sound system, swimming pool, occupancy, and access restrictions within the home and the surrounding property,an accessing component for accessing the centralized database and causing the retrieved information to be displayed on the client system; anda notifying component for electronically notifying a home owner of the monitored M&A data and the M&A tasks performed.

[c26]

A system in accordance with Claim 24 wherein said server system further comprises:a receiving component for receiving M&A information from a client system and the plurality of sensors;a processing component for processing received M&A information against the database containing information collected by the collection component;a retrieving component to retrieve M&A information from the database; andan activating component to electronically activate and deactivate the plurality of sensors based on M&A information and monitored M&A data.

[c27]

A system in accordance with Claim 24 wherein said server system further comprises a receiving component that receives an inquiry from the client system regarding at least one of a layout of the house, a layout of any buildings on the property, a description of the property, and information relating to at least one of lights, locks, doors, windows, drapes, appliances, utilities, furnace, air conditioner, medical devices, security systems, irrigation systems, smoke detectors, thermostats, sound system, swimming pool, occupancy, and access restrictions within the home and surrounding property.

[c28]

A system in accordance with Claim 24 wherein said server system further comprises a receiving component that receives M&A information through a plurality of sensors that includes a plurality of video cameras positioned

throughout the home and the surrounding property such that the movement of persons within the home and on the surrounding property is recorded.

[c29] A system in accordance with Claim 24 wherein said server system further comprises a receiving component that receives M&A information through a plurality of sensors that includes a plurality of video cameras positioned throughout the home and the surrounding property such that a date, a start time, an end time, and a duration of time an area of the home is occupied is recorded.

[c30] A system in accordance with Claim 24 wherein said server system further comprises a receiving component that receives through a plurality of sensors M&A information that includes an identity of persons attempting to access restricted areas of the home.

[c31] A system in accordance with Claim 24 wherein said server system further comprises a receiving component that receives M&A information through a plurality of sensors positioned on at least one window within the home such that the condition of the window is recorded, the condition of the window includes at least one of locked, unlocked, open, closed, vibrating, and broken.

[c32] A system in accordance with Claim 24 wherein said server system further comprises a receiving component that receives M&A information through a plurality of sensors positioned on at least one door within the home such that the condition of the door is recorded, the condition of the door includes at least one of locked, unlocked, open, closed, vibrating, and broken.

[c33] A system in accordance with Claim 24 wherein said server system further comprises a receiving component that receives M&A information through a plurality of sensors positioned on at least one of walls, floors, ceilings, lights, drapes, appliances, utilities, furnace, air conditioner, medical devices, security systems, irrigation systems, smoke detectors, thermostats, sound system, swimming pool, and driveway within the home and on the surrounding property such that condition of the walls, floors, ceilings, lights, drapes, appliances, utilities, furnace, air conditioner, medical devices, security systems, irrigation

systems, smoke detectors, thermostats, sound system, swimming pool, and driveway is recorded.

[c34] A system in accordance with Claim 24 wherein said server system further comprises a receiving component that receives information directly through the client system, and a receiving component that receives information in a predetermined format established for inputting M&A information.

[c35] A system in accordance with Claim 24 wherein said server system further comprises a processing component that accomplishes at least one of: searching and processing received M&A information from the client system and the plurality of sensors against the database containing information collected by the collection component; cross-referencing the received M&A information from the client system and the plurality of sensors against the information contained on the database; and electronically activating and deactivating the plurality of sensors based on the M&A information and the monitored M&A data.

[c36] A system in accordance with Claim 24 wherein said server system further comprises an activating component that includes a plurality of sensors positioned on at least one window within the home such that the sensors can electronically activate and deactivate the lock on the window.

[c37] A system in accordance with Claim 24 wherein said server system further comprises an activating component that includes a plurality of sensors positioned on at least one door within the home such that the sensors can electronically activate and deactivate the lock on the door.

[c38] A system in accordance with Claim 24 wherein said server system further comprises an activating component that includes a plurality of sensors positioned on at least one of lights, drapes, appliances, utilities, furnace, air conditioner, medical devices, security systems, irrigation systems, smoke detectors, thermostats, sound system, and swimming pool within the home and on the surrounding property such that the sensors can electronically activate and deactivate at least one of lights, drapes, appliances, utilities, furnace, air conditioner, medical devices, security systems, irrigation systems, smoke

detectors, thermostats, sound system, and swimming pool.

- [c39] A system in accordance with Claim 24 wherein said server system further comprises a notifying component that transmits an electronic message to the client system from the server system providing the home owner with the monitored M&A data.
- [c40] A system in accordance with Claim 24 wherein said server system further comprises a notifying component that transmits an electronic message to the client system from the server system providing the home owner with the M&A tasks performed at the home and surrounding property.
- [c41] A system in accordance with Claim 24 wherein said system further comprises a service provider system.
- [c42] A system in accordance with Claim 41 wherein said server system further comprises a receiving component that receives contact information relating to at least one service provider for each item monitored by the plurality of sensors.
- [c43] A system in accordance with Claim 42 wherein said server further comprises a contacting component that transmits an electronic message from the server system to a service provider notifying the service provider of a monitored item requiring service and scheduling a service call.
- [c44] A system in accordance with Claim 24 wherein said system further operates via at least one of power line carrier communications and RF communications.
- [c45] A system in accordance with Claim 24 wherein said system controlled remotely by a Personal Digital Assistant (PDA) communicating via at least one of power line carrier communications and RF communications.